RP

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October 3, 1984

RP:0044

U.S. EPA Region 9
Attention: Rhonda Rothschild
215 Fremont Street (At Howard)
San Francisco, California 94105

Dear Ms. Rothschild:

EPA Draft Permit HI6170024719
Hazardous Waste Storage and Treatment
Pacific Missile Range Facility
Kekaha, Kauai

We are hereby responding to your request for comments on the above cited permit to regulate the management of hazardous waste at the Pacific Missile Range Facility in Kekaha, Kauai, Hawaii.

We have been assisted in the review of this permit by the following members of the University of Hawaii community: John Hylin, Agricultural Biochemistry; Roy Takekawa, Environmental Health and Safety; Marshall Mock, Stan Yates, and Brian Yamamoto, Kauai Community College; Jacquelin Miller and Antonio De Oteyza, Environmental Center.

In general, our reviewers found the permit document to be well written and the specified procedures adequate to assure safe handling and storage of the hazardous waste.

We do, however, have a few comments, questions, and suggestions which we offer for your consideration.

Page I.1 and IV.1

As presently drafted the permit appears to limit storage to Otto fuel waste only. Is this the only type of hazardous waste that can be stored at this facility or would storage of related or similar chemical wastes be permitted?

Page I.4

We note that the permittee shall report to the Regional Administrator within 24 hours any "noncompliance which may endanger health or the environment". The prescribed 24 hour period may be appropriate for notification of the "Regional Administrator" in case of some emergencies. However, for emergencies endangering public drinking water (I.4, I.15(a) or posing a threat to "the environment or human health outside the facility", notification of appropriate state/county officials and the Regional Administrator should surely be required within a much shorter time. Since the facility is a military establishment with personnel available on a "round-the-clock-basis", notification of proper authorities within 4 to 6 hours in the event of a hazardous emergency would seem more appropriate.

Attachment E: Requirements for reactive, ignitable, and incompatible waste. Description of procedures, structures or equipment used at the facility to prevent contamination and exposure.

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The permit documentation cites the lack of water wells nearby as the basis for no concern with potential water contaminants. We would point out that the proximity (or lack thereof) of wells is not necessarily the key concern. The Barking Sands area is noted for its dry, highly permeable soils. Any spillage would certainly reach the water table quickly. The safeguard is not that the nearest water wells are distant, but that they are inland, whereas any ground water flow in the vicinity is seaward.

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The statement that "the existing light brown color of the treatment and storage tanks reflects sunlight and therefore prevents a buildup of heat" seems incorrect. While the heat absorption of light brown may be less than that of a darker color, nevertheless heat will be absorbed by the brown tanks. It would seem far better and not physically or economically unreasonable, given the potential temperature effects cited (Attachment F: Contingency Plan, page 19), to monitor the temperatures in the treatment and storage tanks so as to establish worst case baseline conditions and assure that unsafe temperatures are not achieved on bright hot days.

Attachment F: Contingency Plan--Hazardous Wastes

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We note that after stablization the wastes are transferred to 2000 gallon portable tanks to Unitek Environmental Services Inc. on Oahu for disposal. What type of shipping cargo manifest accompanies this shipment, or what other safety enforcement procedure is followed, to assure that the volume leaving Kauai arrives on Oahu?

Page 24, 28

A description and discussion is provided for contingency plans to be implemented in the event of various emergency scenarios. Mention is made of a 4" high curb surrounding the area in which a 3000-gallon storage tank and a 1000-gallon treatment tank are located, and that the holding capacity of the area within the curb is 1000 gallons. We do not see a further description of the curbed area that indicates whether or not it is lined, but the contingency plan covers the case of overflow of the curbed area and contamination of the soil outside that would require removal of the soil. To prevent contamination of the soil within the curb, that area would have to be lined. If it is lined, it would seem preferable to increase the holding capacity of the area within the curb so that it could contain all of the fluid that might be released by a tank failure (by increasing the height of the curb) rather than risk contamination of the soil outside. From the standpoint of economics alone, the relatively modest cost of increasing the curb wall by a few inches would surely be insignificant compared to the costs of removing contaminated soil, if that should be necessary, not to mention the additional health and safety advantages. Incidently, there is no time frame indicated for contaminated soil removal under the existing plans.

We suggest that the curb be designed so as to prevent fluid from sloshing over it.

We do not see discussion of the hazards that might be associated with earthquakes in the area. We note that the greatest intensity that has been experienced in the Mana area in the last 125 years is probably low in the range of Modified Mercalli intensity V (in 1871). We assume that assurance could be given that, even with the recurrence of such an intensity, significant damage to either the tanks or the curb would be unlikely.

The proposed alternative storage site (Figure 5) seems quite reasonable as it appears to be well isolated from roads, canefields and traffic. If there will be any off loading of the storage tanks from the semi-trailers to the site itself, then some additional protective bermed structures may need to be considered in case of accidents during off loading. If the semi-trailers are just parked with their loads at the alternative site until the emergency condition abates, then special storage site foundations are probably not necessary.

We appreciate the opportunity to comment on this permit.

Yours truly,

Doak C. Cox
Director

cc: John Hylin
Roy Takekawa
Marshall Mock
Stan Yates
Brian Yamamoto
Jacquelin Miller
Antonio De Oteyza